

Certificate of Analysis

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Product Name: CHM 1

Catalog No.: 3868

Batch No.: 1

CAS Number: 154554-41-3

IUPAC Name: 6-(2-Fluorophenyl)-1,3-dioxolo[4,5-g]quinolin-8(5H)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

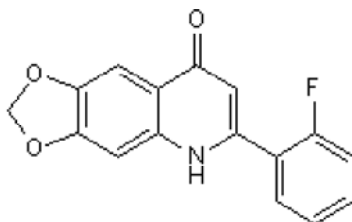
Batch Molecular Formula: C₁₆H₁₀FNO₃

Batch Molecular Weight: 283.25

Physical Appearance: White solid

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.62 (Chloroform:Methanol [10:1])

HPLC: Shows 99.6% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	67.84	3.56	4.94
Found	67.89	3.56	5.01

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Inducer of apoptosis; displays potent antitumor ability in human hepatocellular carcinoma. Inhibits tubulin polymerization in vitro and in vivo. Causes cell cycle arrest at G₂/M phase by activation of Cdc2 kinase activity. Induces translocation of apoptosis inducing factor (AIF) from the mitochondria to nucleus. Also exhibits vascular targeting activity through upregulation of p53 and induction of death receptor (DR5)-mediated apoptosis in HUVEC cells.

Physical and Chemical Properties:

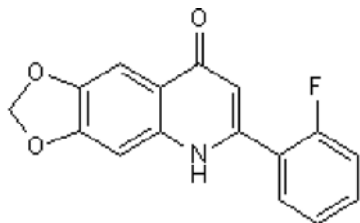
Batch Molecular Formula: C₁₆H₁₀FNO₃

Batch Molecular Weight: 283.25

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Tsai et al (2010) CHM-1, a new vascular targeting agent, induces apoptosis of human umbilical vein endothelial cells via p53-mediated death receptor 5 up-regulation. *J.Biol.Chem.* **285** 5497. PMID: 20007968.

Wang et al (2008) CHM-1, a novel synthetic quinolone with potent and selective antimitotic antitumor activity against human hepatocellular carcinoma *in vitro* and *in vivo*. *Mol.Cancer.Ther.* **7** 350. PMID: 18281518.

Storage: Store at RT

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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